RESPONSE UNDER 37 CFR 1.116-
EXPEDITED PROCEDURE EXAMINING
GROUP 1797

DOCKET NO: 278178US0PCT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF	:
MARCO BERGEMANN, ET AL.	: EXAMINER: PO, MING CHEUNG
SERIAL NO: 10/550,910	:
FILED: SEPTEMBER 28, 2005	: GROUP ART UNIT: 1797
FOR: POLYALKENE AMINES WITH IMPROVED APPLICATIONAL PROPERTIES	:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s). No more than five (5) pages are provided.

I am the attorney or agent of record.

Respectfully Submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Kirsten A. Grüneberg, Ph.D.
Registration No. 47,297

Customer Number
22850
Tel. (703) 413-3000
Fax. (703) 413-2220
(OSMMN 07/05)

ATTACHMENT TO PRE-APPEAL BRIEF REQUEST FOR REVIEW

The Applicants respectfully request pre-appeal review of the following issue:

1) Claims 1-3 and 7-22 stand rejected under 35 U.S.C. § 103(a) over Kummer in view of Kaiser. This rejection is respectfully traversed.

The present invention as set forth in **Claim 1** relates to a polyalkene amine formulation, comprising:

at least one polyalkene amine in a solvent,

wherein the formulation has at least one of the following low temperature properties:

a) a cloud point less than or equal to -28°C determined according to DIN ISO 3015 or DIN EN 23015;

b) a pour point less than or equal to -27°C determined according to DIN ISO 3016; and/or

c) no crystalline precipitates after storage at a temperature in the region of about -35°C;

wherein the solvent is selected from mixtures of:

S1) at least one n- or iso-C_{10}-C_{14} paraffin,

S2) at least one C_{10}-C_{14} naphthene; and

wherein S1 and S2 are present in a mixing ratio of from 10:90 to 90:10.

Kummer in view of Kaiser fail to disclose or suggest a formulation as claimed

wherein the solvent is selected from mixtures of:

S1) at least one n- or iso-C_{10}-C_{14} paraffin,

S2) at least one C_{10}-C_{14} naphthene; and

wherein S1 and S2 are present in a mixing ratio of from 10:90 to 90:10.

The specific solvent mixture is not disclosed in Kummer. The specific mixture is not recognized as result effective in the cited references, and the advantages are not recognized (see specification page 4, last paragraph, page 5, lines 22-24, page 10, entirely and especially lines 31-32, page 3, lines 1-18 (low temperature properties)). There is no motivation to use the specific paraffin and naphtene in combination.

While Kummer refers to the preparation of polybutyl- or polyisobutyl amines (see formula I in claim 1 of Kummer) and suggests in column 4, lines 26 to 39 that it might be advantageous to use in the preparation process a suitable inert solvent, Kummer neither discloses the specific solvent as claimed nor suggests that by applying a formulation as claimed, the low temperature performance as illustrated in the experimental part of the present application (see for example tables A, B and C at pages 19-21 of the specification as originally filed) can be improved significantly. Most notably, the cloud point, pour point and the storage stability was improved significantly using the solvents of the present invention in the claimed formulation.

Further, the combination of Kummer and Kaiser is improper as the Kummer reference does not explicitly disclose mixtures of paraffins and naphthenes. In addition, even if combined, there is no disclosure of the specific C_{10}-C_{14} paraffins and naphthenes and the resulting superior properties.

Kaiser **relates to a completely different technical field** and would not be considered at all by a person of ordinary skill in the art relevant for the present invention.

As can be taken from the abstract of Kaiser in column 1, lines 10 to 17, said document refers to the preparation of a **ferrofluid containing a suspension of ferromagnetic particles**. Said fluid may be used to attract and pick up oil contaminations floating on open bodies of water. There is no correlation between this technical field an the technical filed of

the present invention (preparation of engine fuels supplemented with purposively selected additives) or the technical field of Kummer.

The ferrofluid of Kaiser consists of said ferromagnetic particles, a carrier liquid selected from paraffins and naphthenes, in particular, C_{9-21} paraffins and C_{7-18} naphthenes and mixtures thereof. In addition, a further **mandatory**, essential constituent of the Kaiser composition is a surfactant. As stated in column 3, lines 8 to 12:

*"...proper selection of the carrier liquid will **not** in itself provide a ferrofluid with all the requisite physical attributes. Some attributes are provided by **proper selection** of the colloid stabilizing ingredient, i.e. the surfactant, and its relative portion in the ferrofluid."* *[emphasis added]*

This highlights the fact that the Examiner has applied an inadmissible hind sight analysis of said prior art document, actually teaching a combination of 3 mandatory constituents, i.e. ferromagnetic particles, carrier liquid and surfactant. While the Examiner disregards two of the constituents (ferromagnetic particles and surfactant) he focuses on the partial disclosure of column 2, lines 35 to 50 of Kaiser. Moreover, Applicants disagree with the Examiner's analysis of said paragraph. While it is literally stated that:

"The mixtures have lower pour points and a better controlled evaporation rate.", a person of ordinary skill will recognize that said statement does **not** refer to a combination of paraffins and naphthenes. It is unambiguously clear from the context of said paragraph that said statement refers to the fact that isomeric mixtures of, for example, C_{7-18} naphthenes will show a lower pour point. This is also clear from the preceding sentence reading as follows:

"Actually, hydrocarbon mixtures are preferred over a pure hydrocarbon compound."

Objectively, it is nowhere suggested by Kaiser to use a combination of paraffins and naphthenes as carrier liquid for said ferrofluid. Moreover, none of the exemplified

compositions in the experimental part of Kaiser seem to make use of such combinations of paraffins and naphthenes.

Moreover, reference is made to the specific pour points listed in Table C of the present application text. As can be seen, pure Mihagol shows a pour point of -27 °C and pure LIAV shows a pour point of -51 °C. Mixtures of said two solvents show a pour point **above** said minimum value of -51 °C. Therefore, the data stated in the application text **disprove** the Examiner's allegation on the bottom of page 6 of the Office Action that "Kaiser *teaches the benefits of combining* a *paraffinic solvent with a naphthene solvent*".

Kummer discloses generically that **in the preparation process** of polyisobutenamines of formula (I) "*it is advantageous to use a suitable, inert solvent in order to reduce the viscosity of the reaction mixture*" (column 4, lines 26 to 28). However, Kummer nowhere explicitly discloses or suggests to use solvent combinations of the claimed type. In particular, the entire set of experiments disclosed by Kummer is restricted to the use of **dodecane**. Kummer nowhere suggests that the use of specific solvent combinations might be associated with the surprising beneficial effects as illustrated by the experimental part of the present specification.

Applicants wish to draw the Examiners' attention to Table B of the present specification illustrating the surprising observation that a typical solvent mixture of the present invention (Mihagol/LIAV = 80/20) shows a surprisingly improved low temperature behavior (**lower pour point and improved starch stability**) **although** the content of active ingredient is significantly higher (**65** %) if compared to the conventional PIBA formulation (solvent Mihagol) merely containing 53 % of PIBA. This is not disclosed or suggested by Kummer in view of Kaiser.

CONCLUSION

In view of the above remarks, the Applicants respectfully request that that the rejections of record be withdrawn.